

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (Currently Amended) A method of measuring stress/strain of magnetic or magnetizable elements by detecting Barkhausen noise, comprising:

arranging an exciting/sensing device at least adjacent to said element;

applying a continuously rising magnetizing current to the exciting device;

detecting starting of Barkhausen noise by means of the sensing device;

determining magnitude of the magnetizing current when the Barkhausen noise starts; [[and]]

comparing the determined magnitude of the magnetizing current when the Barkhausen noise starts with measured reference values to determine the stress/strain condition of the element; and

outputting a signal representing the determined stress/strain condition of the element.

Claim 2. (Previously Presented) The method according to Claim 1, wherein the exciting/sensing device is arranged in a manner in which it at least partially surrounds the magnetic or magnetizable element.

Claim 3. (Previously Presented) The method according to Claim 1, wherein:

said continuously rising magnetizing current is pulsed; and

the sensing device detects the Barkhausen noise during off-time of the pulses.

Claim 4. (Previously Presented) The method according Claim 1, wherein an intermediate element made of a non-magnetized or non-magnetizable material is arranged between the magnetic or magnetizable element and a structure that is to be connected therewith.

Claim 5. (Previously Presented) The method according to Claim 3, wherein the magnetic or magnetizable element is arranged between a non-magnetic or non-magnetizable fastening element and a structure that is to be connected therewith, before the determination of its stress/strain condition.

Claim 6. (Previously Presented) The method according to Claim 5, wherein the determined magnetizing current at the start of the Barkhausen noise is proportional to the internal stress of the element.

Claim 7. (Cancelled)

Claim 8. (Currently Amended) A method of measuring stress/strain in a magnetic or magnetizable item, comprising:

applying a continuously increasing magnetic field to said item;

detecting a time of commencement of Barkhausen noise generated in said item in response to said magnetic field;

determining strength of said magnetic field at said time of commencement of Barkhausen noise;

determining stress/strain in said item as a function of the determined strength of the magnetic field at said time of commencement of Barkhausen noise; and

outputting a signal representing the determined stress/strain condition of the element.

Claim 9. (Previously Presented) The method according to Claim 8, wherein said applying step comprises passing a continuously increasing magnetizing current through an exciting device situated in proximity to said item.

Claim 10. (Previously Presented) The method according to Claim 9, wherein said step of determining strength of the magnetic field comprises measuring said magnetizing current at said time of commencement of Barkhausen noise.

Claim 11. (Previously Presented) The method according to Claim 10, wherein said step of determining stress/strain in said item comprises comparing measured magnetizing current with measured reference values for said item.